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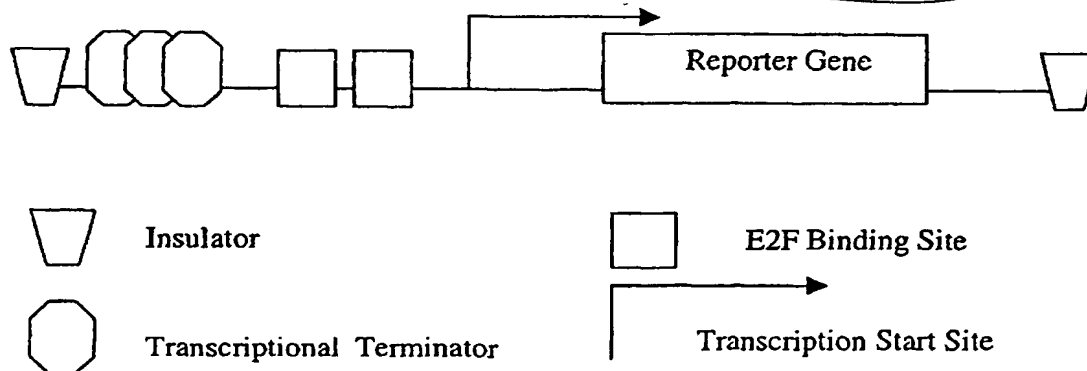
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(54) Title: **IN VIVO IMAGING OF E2F-REGULATED BIOLUMINESCENT PROTEINS**



(57) Abstract: The present invention relates to transgenic animals, as well as compositions and methods relating to the identification of proliferating cells. Specifically, the present invention provides transgenic mice having a nucleic acid comprising an E2F responsive promoter operably linked to a nucleic acid encoding a bioluminescent protein. Such transgenic mice are useful as models for disease and for identifying agents that modulate gene expression and are potential treatments for various disease states and disease conditions such as cancer.